



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,260	02/06/2004	Toshihiro Ifuku	03500.017882	4439

5514 7590 10/17/2006

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

AGUIRRECHEA, JAYDI A

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

10/772,260

Examiner

Jaydi A. Aguirrechea

Applicant(s)

IFUKU ET AL.

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone interview with Atty. D.Pinsky (10/11/06).
2. ☒ The allowed claim(s) is/are 13, 15-19 and 21-28.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Douglas Pinsky on 10/11/06.

The application has been amended as follows:

CLAIMS

17. (Currently Amended) A piezoelectric actuator according to claim 13, wherein a crystal orientation ~~degree~~ rate of a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate, measured by a $2\theta/\theta$ method with an X-ray incident angle θ to the crystal plane of said epitaxial ferroelectric film parallel to the crystal plane of the surface of said substrate, is 90 % or higher.
18. (Currently Amended) A piezoelectric actuator according to claim 13, wherein a crystal plane of said epitaxial ferroelectric film parallel to a crystal plane of a surface of said substrate has a crystal orientation ~~degree~~ rate of 99% or higher.

SPECIFICATION

- At page 27, lines 6 and 7, change "crystal orientation degree" to --crystal orientation rate--.
- At page 27, line 20, change "crystal orientation degree" to --crystal orientation rate--.
- At page 27, lines 24 and 25, change "crystal orientation degree" to --crystal orientation rate--.
- At page 35, line 21, change "crystal orientation degree" to --crystal orientation rate--.
- At page 36, line 23, change "crystal orientation degree" to --crystal orientation rate--.
- At page 39, line 9, change "crystal orientation degree" to --crystal orientation rate--.
- At page 40, line 25, change "crystal orientation degree" to --crystal orientation rate--.

Art Unit: 2834

At page 41, lines 2 and 3, change "crystal orientation degree" to --crystal orientation rate--.

At page 41, line 9, change "crystal orientation degree" to --crystal orientation rate--.

At page 41, line 26, change "crystal orientation degree" to --crystal orientation rate--.

At page 43, lines 15 and 16, change "crystal orientation degree" to --crystal orientation rate--.

At page 44, Table 1, change "crystal orientation degree" to --crystal orientation rate--.

At page 45, lines 7 and 8, change "crystal orientation degree" to --crystal orientation rate--.

At page 46, line 1, change "crystal orientation degree" to --crystal orientation rate--.

At page 46, lines 11 and 12, change "crystal orientation degree" to --crystal orientation rate--.

At page 47, line 13, change "crystal orientation degree" to --crystal orientation rate--.

At page 51, lines 1 and 2, change "crystal orientation degree" to --crystal orientation rate--.

At page 53, line 14, change "crystal orientation degree" to --crystal orientation rate--.

At page 53, line 19, change "crystal orientation degree" to --crystal orientation rate--.

At page 53, line 26, change "crystal orientation degree" to --crystal orientation rate--.

At page 54, line 15, change "crystal orientation degree" to --crystal orientation rate--.

At page 57, lines 17 and 18, change "crystal orientation degree" to --crystal orientation rate--.

At page 58, line 7, change "crystal orientation degree" to --crystal orientation rate--.

At page 60, lines 15 and 16, change "crystal orientation degree" to --crystal orientation rate--.

At page 61, Table 2, change "crystal orientation degree" to --crystal orientation rate--.

At page 62, line 6, change "crystal orientation degree" to --crystal orientation rate--.

At page 63, lines 12 and 13, change "crystal orientation degree" to --crystal orientation rate--.


Art Unit: 2834

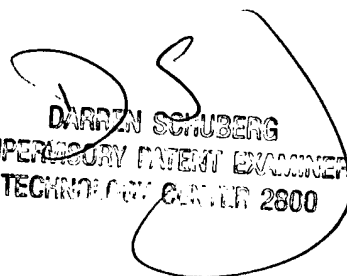
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaydi A. Aguirrechea whose telephone number is 571-272-2018. The examiner can normally be reached on M-Th 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JAA
10/11/06


DARRIN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800